

11/17/03

FORM PTO 1449 US Department of Commerce Patent and Trademark Office	ATTY DOCKET NO.: <b>UBAT1310</b>	APPLICATION NO.: <b>09/795,660</b>
	APPLICANT(S): <b>Vladimir I. Merkulov, et al.</b>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE: <b>02/27/01</b>	GROUP ART UNIT: <b>2812</b>

U.S. PATENT DOCUMENTS


EXAM. INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
SJF	A1	5,804,910	09/08/98	Kevin Tjaden, et al.	313	310	01/18/96
SJF	A2	6,417,606	07/09/02	Masayuki Nakammoto, et al.	313	336	10/08/99
	A3						
	A4						

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION (YES/NO)
	B1						
	B2						
	B3						
	B4						

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages)

SJF	C1	PCT International Search Report Date Mailed September 17, 2002.
SJF	C2	<i>Synthesis of Large Arrays of Well-Aligned Carbon Nanotubes on Glass</i> by Z.F. Ren, et al. SCIENCE Vo. 282, November 6, 1998
SJF	C3	<i>Variations in Structure and Emission Characteristics of Nanostructured Carbon Films Prepared by HFCVD Method Due to the Addition of Ammonia in Source Gases</i> , by Seungho Choi, et al. Dept. of Molecular Science and Technology, Ajou University, Suwon 442-749 Korea. 2001 IEEE
	C4	

EXAMINER 	DATE CONSIDERED <b>7/13/05</b>
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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<b>Form PTO-1449 (modified)</b>  <b>List of Patents and Publications for Applicant's</b>  <b>INFORMATION DISCLOSURE STATEMENT</b>  (Use several sheets if necessary)	<b>Atty. Docket No.</b> UBAT:027US/JJB	<b>Serial No.</b> 09/795,660
<b>Applicant</b> Vladimir I. Merkulov <i>et al.</i>		
<b>Filing Date:</b> February 27, 2001		<b>Group:</b> 2812
<b>U.S. Patent Documents</b> <i>See Page 1</i>	<b>Foreign Patent Documents</b> <i>See Page 1</i>	<b>Other Art</b> <i>See Page 1</i>

### U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.

### Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No

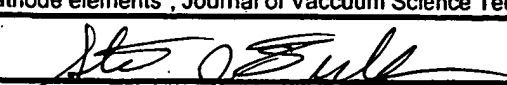
### Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
SJF	C1	Baker, "Catalytic growth of carbon filaments," <i>Carbon</i> , 27:315-323, 1989.
SJF	C2	Merkulov <i>et al.</i> , "Patterned growth of individual and multiple vertically aligned carbon nanofibers," <i>Applied Physics Letters</i> , 76:3555-3557, 2000.
SJF	C3	Ren <i>et al.</i> , "Growth of a single freestanding multiwall carbon nanotube on each nanonickel dot," <i>Applied Physics Letters</i> , 75:1086-1088, 1999.
SJF	C4	Ren <i>et al.</i> , "Synthesis of large arrays of well-aligned carbon nanotubes on glass," <i>Science</i> , 282:1105-1107, 1998.

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<b>EXAMINER:</b> <i>John G. Sub</i>	<b>DATE CONSIDERED:</b> 7/13/05
EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	

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<b>FORM PTO 1449 US Department of Commerce Patent and Trademark Office</b>		Application Number		09/795660	
		Filing Date		February 27, 2001	
		First Named Inventor		Vladimir Merkulov, et al.	
		Group Art Unit		2812	
		Examiner Name		Unknown	
Sheet	1	of	1	Attorney Docket Number	UBAT1310
Examiner Initials	Cite No.	<b>OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS</b>			Date
SJF	C1	Guillom, et al., "Operation of a gated field emitter using an individual carbon nanofiber cathode," Applied Physics Letters, Vol. 79, No. 21, pp. 3506-3508.			November 19, 2001
SJF	C2	Baylor, et al., "Field emission from isolated individual vertically aligned carbon nanocones" Journal of Applied Physics, Vol. 91, No. 7, pp. 4602-4606.			April 1, 2002
SJF	C3	Saito et al., "Field Emission Patterns from Single-Walled Carbon Nanotubes," Japan Journal Applied Physics, Vol. 36, pp. 1340-1342.			October 1, 1997
SJF	C4	Matsumoto, et al., "Ultralow biased field emitter using single-wall carbon nanotube directly grown onto silicon tip by thermal chemical vapor deposition," Applied Physics Letters, Vol. 78, No. 4, pp. 539-540.			January 22, 2001
SJF	C5	Guillom, et al., "Fabrication of gated cathode structures using an <i>in situ</i> grown vertically aligned carbon nanofiber as a field emission element", Journal of Vacuum Science, pp. 573-578.			Mar/Apr. 2001
SJF	C6	Rinzler, et al., "Unraveling Nanotubes: Field Emission from an Atomic Wire" available at www.jstor.org, pp. 1550-1553.			May 9, 2002
SJF	C7	Merkulov, et al., "Patterned growth of individual and multiple vertically aligned carbon nanofibers," Applied Physics Letters, Vol. 76, No. 24, pp. 3555-3557.			June 12, 2000
SJF	C8	Xueping, et al., "A method for fabricating large-area, patterned, carbon nanotube field emitters," Applied Physics Letters, Vol. 74, No. 17, pp. 2549-2551.			April 26, 1999
SJF	C9	Merkulov, et al., "Scanned-probe field-emission studies of vertically aligned carbon nanofibers" Journal of Applied Physics, Vol. 89, No. 3, pp. 1933-1937.			February 1, 2001
SJF	C10	Bonard, et al., "Field emission from single-wall carbon nanotube films" Applied Physics Letters, Vol. 73, No. 7, pp. 918-920			August 17, 1998
SJF	C11	Xueping, et al., "Carbon Nanotube-based vacuum microelectronic gated cathode," Material Research Society Symposium, Vol. 509, pp. 107-109.			1998
SJF	C12	Dean, et al., "The environmental stability of field emission from single-walled carbon nanotubes" Applied Physics Letters, Vol. 75, No. 19, pp. 3017-3019.			November 8, 1999
SJF	C13	Wang, et al., "Flat panel display prototype using gated carbon nanotube field emitters," Applied Physics Letters, Vol. 78, No. 9, pp. 1294-1296.			February 26, 2001
SJF	C14	Lee, et al., "Realization of Gated Field Emitters for Electrophotonic Applications Using Carbon Nanotube Line Emitters Directly Grown into Submicrometer Holes," Advanced Materials Communications, Vol. 13, No. 7, pp. 479-482.			April 4, 2001
SJF	C15	Guillom, et al. "Microfabricated field emission devices using carbon nanofibers as cathode elements", Journal of Vacuum Science Technology B19(6), pp. 2598-2601.			Nov/Dec. 2001
Examiner Signature				Date Considered	7/13/05